

California

*This issue is dedicated to
Mrs. J. R. Kirkpatrick of Vista, California,
in grateful recognition of her years of devoted service
to the San Diego Floral Association*

DECEMBER - JANUARY • 1969-1970

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GARDEN



Mass arrangement in traditional style, three-dimensional setting, by Mrs. J. R. Kirkpatrick

Floral events...

SAN DIEGO FLORAL ASSOCIATION PROGRAMS

Third Tuesday, Floral Building, Balboa Park

Chairman, Mrs. Alvin T. Laughlin

JANUARY 20 — TUESDAY 1:30 P.M. meeting. Program will feature Helen Ard, arranger in the modern Japanese Ikebana school Kofu. A director and teacher in the school she represents, Mrs. Ard will give a demonstration entitled, "Starting the New Year Right with Arrangements." Come, bring your friends. San Diego Floral Association Meetings are open to all. Floral Building.

SOUTHERN CALIFORNIA IRIS SOCIETY

JANUARY MEETING AND SHOW:

JANUARY 24, 1970 — The January meeting of the Southern California Iris Society will be held on Saturday, January 24th, in the Lecture Room of the Los Angeles County and State Arboretum, 301 North Baldwin, Arcadia, Calif. Coffee and refreshments will be served starting at 12:00 Noon; followed by a meeting and program from 12:30 p.m. to 3:00 p.m. All flower growers and guests are invited to the meeting and program.

JANUARY IRIS SHOW — As a part of the Southern California Iris Society's January 24th meeting, the FIRST Iris Show of 1970 will be held. Entries—open to all members and to the public—are to be brought in between 10:00 a.m. and 12:00 Noon. Judging will be made during the S.C.I.S. meeting; after which the Iris Show will be open for viewing from 3:00 p.m. to 5:00 p.m. on Saturday, January 24th, and from 10:00 a.m. to 4:00 p.m. on Sunday, January 25th.

The public is invited! No charge.

Bus Tours

Our Bus tours will commence again in February with the annual tour to the India Date Festival. Information will be in the next issue of this magazine.

San Diego Floral Association Office—will be closed for the holidays. Regular office hours are from 10 to 3 on Mondays, Wednesdays and Fridays. 232-5762.

Flower Arrangement Classes

Mrs. John Kirkpatrick

Class will be held in Floral Bldg.

Last Monday in January 1970.

Toward a New Year . . . an Editorial

IT IS WELL to start a new year with remembrance of the good things of the past year—of all the past years. It is on these good things of the past that the hopes and accomplishments of the future rest.

In this issue we honor a lovely lady, Mrs. John Kirkpatrick. Your editor had the pleasure of a happy Saturday visit with Mr. and Mrs. Kirkpatrick recently, in their Vista home. It is a wonderful home, with a myriad of treasures to excite your curiosity, interest and admiration. I have written, on another page of this issue, some of my impressions from talking with the Kirkpatricks.

This issue marks the end of my editorship with the CALIFORNIA GARDEN magazine, a statement which I make with

sorrow, but born of necessity. For many and complex reasons, I have resigned as editor. But I could not go without saying a goodbye to you all, in these pages. I have enjoyed meeting many wonderful people in the course of my two-year tenure as editor. They are people I continue to treasure as friends.

My grateful thanks to those talented friends whose help in working with me as a team has given us many interesting presentations in CALIFORNIA GARDEN: Betty and Gene Cooper, who have given valued aid and advice as well as our beautiful color covers; Betty Mackintosh, who has given so generously of her time and film—an artist photographer; Helen Witham, who writes with style and knowledge of the marvelous world of

plants; Helen Carswell of Sepulveda, whose articles we have enjoyed so much; and so many more writers who have faithfully passed on their knowledge and experience. I must name a few who deserve great credit for their willingness to help: Larry Sisk, Bill Gunther, George James, Richard Streep, Rosalie Garcia, Annabelle Stubbs, Howard Voss, Joan Betts, Dr. J. W. Troxell, and Dorothy Marx. So many, you see, that I must apologize if I have omitted anyone! Past President of Floral, Virgil Schade, I mention with gratitude for his assistance and friendship.

To all of you and your president, Virginia Innis, I wish a wonderful year in 1970 and the years to come.

—Virginia Norell



CALIFORNIA GARDEN

California's Own Garden Magazine

December 1969 — January 1970

Vol. 60

No. 6

The San Diego Floral Association

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and Largest Garden Club

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THE COVER

The most surprised lady in San Diego this month (we hope!) was the artist arranger of the three-dimensional arrangement photographed for our cover — Mrs. John Kirkpatrick. When Betty and Gene Copper wheedled her into coming over for a whole day's special session for this photograph, they told her a slight — very slight — fable, that the picture was for the magazine, but she had no idea that it was for the cover of this issue, which was to be dedicated to her. They all had a fun day, and Betty and Gene snapped many careful pictures. Gene's camera took the one we decided to use, and we hope you all like it as much as we did.

FEATURES

Dedication and Story, Mrs. John Kirkpatrick	5, 7
Trees of the Desert by Helen Witham	9
Garden Societies Donate Plants to San Diego Zoo by Timothy Aller	14
Propagation by Proxy by Jim Stalsonburg	16
Reblooming Iris Show by Penny Bunker	17
Pages from an Early California Garden	18
Morimono by Barbara Jones	20
The Rancho Santa Ana Botanic Garden by Bill Gunther	23
Succulents of the Season	25

Calendar of Care

Plants and Their Environment by George James	28
Dahlias by Larry Sisk	30
Fuchsias by Annabelle Stubbs	31
Iris by Sanford Roberts	32
Roses by Richard D. Streeper	33

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"and flowers around thy
pathway lie . . ."

"I sigh for one of my nosegays of
wild fresh flowers"

"Flowers are love's truest language . . ."

"a lasting beauty to those forms,
which scarce a moment live . . ."

"from their petals thou wilt bear sweet words,
. . . all eloquent of feelings unexpressed . . ."



The
San Diego Floral Association
affectionately dedicates this issue
of
California Garden
to its dear friend
Mrs. John Kirkpatrick
for her years of instruction in
the art of flower-arranging,
and for the inspiration
she has given
to so many

" . . . to see a beauty in
a stirring leaf . . ."

"flowers which but in secret bloom,
where . . . sheltered shadows linger . . ."

" . . . this speaking rose becomes a token, fit to tell
of things that words can ne'er disclose,
and naught but this reveal so well . . ."

" . . . there is a flower,
forget-me-not, . . . of love-
liest and serenest blue . . ."

"I send this flower to one
made up of loveliness
alone . . ."

Editor's Note: Quotations on this page are taken from a tiny volume, "The Bouquet," published in Boston, bearing the date 1846. This rare little book was loaned to us by Mrs. Eugene Cooper to excerpt some lines expressing the thoughts of Mrs. Kirkpatrick's many friends in the Floral Association and other garden groups.

A surprise for Mrs. Kirkpatrick

—flower arrangement teacher extraordinary

by Virginia Norell



*The beginning of a long, happy, busy life together—
the Kirkpatricks at an outing in Balboa, about 1911.*



The Kirkpatricks of Vista.

IT IS ONLY FITTING that this dedication of the December CALIFORNIA GARDEN should be made to Mrs. John Kirkpatrick, because she is the personification of the word *dedicated*.

In a happy conspiracy, the Floral Association decided to honor their teacher who has been conducting Flower Arrangement Classes for many a year. Betty and Gene Cooper and your editor, with the invaluable assistance of Mrs. Elbert Schoneman (an excellent botanist who works with Mrs. Kirkpatrick), carried out the details of acquiring the cover art, an interview with the Kirkpatricks in Vista, and acquiring the photographs of this lovely lady's arrangements. (See our next two pages.) It does appear that we were successful, and she *was* surprised when she was presented with a framed "first" color photo of this month's cover at the December Floral Association dinner meeting. (The conspirators had a good time carrying off this project, too!)

Mrs. Kirkpatrick has been living and

working in our county for about 18 years, at which time she had moved here from Chicago. At that time, she was already winning prizes for her arrangements, so it was only natural that she would gravitate to that activity in San Diego. It was in one of Alfred Hottes' classes (his name as a horticulturist and former contributor to this magazine is well known to those who have been here for some time), that Mrs. Kirkpatrick met Frances Schoneman. The two, with a common love of what they are doing in creating flower arrangements and seeking out materials, were inevitably to become good friends. They have worked together now for about 15 years. To Mrs. Kirkpatrick's ability to put plant materials together beautifully, Mrs. Schoneman brings her botanist's knowledge of the plant world.

In Mrs. Kirkpatrick's Vista home is a treasure trove of containers, plant materials, rare living specimens in her garden — she has two towering Torrey Pines — figurines, and every conceivable

item to make an endless array of plant art.

What does it take to be able to design and put together a beautiful arrangement? I think the answer lies in the rich collection of items of every description, color, texture, feeling. In commenting about one lovely arrangement after another, I began to hear a response from Mrs. Kirkpatrick that went something like this: "Well, I'll tell you what triggered it . . ." There was one answer! Association . . . one idea leads to another. Best to have plenty of material on hand!

What leads to the *teaching* of an art like Mrs. Kirkpatrick's? As we talked about this, her love of what she is doing showed through, and of course there is the answer. Love must be shared . . . and that is what she does. Her love comes through in the form of enthusiasm, and that is one of the most infectious attributes in the world.

Mr. Kirkpatrick is very proud of his talented wife, who is contributing so much to others.

Many of us manage to be a great inspiration to one, or a few people. But, our salute to you, Mrs. Kirkpatrick, for bringing inspiration to so many over a period of many years: a talented artist, creating beauty, and willing to share it.



Gilded palm, papyrus balls and fruit are festive.



A touch of abstract.



Artificial fruit again, used with totally different flower and plant material.

Below: Roses with quite unexpected foliage.

Favorite Arrangements by Mrs. John Kirkpatrick



Use of lilies in a beautiful balance.





Holiday Delights . . .

Left, top: Would you believe bamboo angels, weathered wood pedestals, pine, and succulents? Lovely for Christmas!

Below, left: A traditional Madonna with red carnations, berries, and contrasting types of foliage.

Below: A modern Madonna against the cathedral-like dignity of broad agave leaves. The color was supplied by red roses. (Wish we could have shown this in color!)



ARRANGEMENT PHOTOS
BY BETTY COOPER



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PHOTOS
BY
BETTY
MACKINTOSH

Smoke Tree (Dalea spinosa) photographed in the Fish Creek area, Anza-Borrego Desert State Park, with Elephant Knee Butte in background.

The Trees Of The Desert Are Different

by Helen Witham

THEY HAVE TO BE.

These are not the tall leafy oaks and maples that shade summer streets in rainier climates, not the deep green, solid, spires of the great evergreen forests. They will not fill you with nostalgia for the long-remembered sound of scuffling leaves, for they do not have that many leaves, and such leaves as they have do not lend themselves to scuffling.

Here, in an environment inhospitable to most plants, a few kinds of trees have been able to survive and perpetuate themselves over the ages. They have had to contend with heat, strong winds, blown

sand, humus-poor soil, and insufficient or intermittent moisture. Trees must stand there and take it. They cannot burrow underground, fly away, curl into a ball, or otherwise escape these hazards. They stand there, on their own, and only a few have made the grade.

When you think of "going to the desert" this winter or early spring, you will very likely be thinking of Anza-Borrego, Indio, Salton Sea, Palm Springs, Imperial Valley, or maybe the Colorado River. This part of California's desert region is now being quite often referred to as the "Low Desert" rather than by

the term geographers use: Colorado Desert. The great desert area which comprises the southeastern part of California is roughly divided into two sections by a crosswise chain of mountains which dwindles away toward the east, where some low north-south ranges continue the dividing line in sketchy fashion. The higher elevation of the Mohave Desert, the portion north of this line, gives it the name, "High Desert," while Coachella and Imperial Valleys and neighboring areas, where elevation ranges down to several hundred feet below sea level are, unavoidably, "Low Desert."

So let's go down to the desert, and get acquainted with its trees. This is not a forested area; they will not be many, nor of many kinds; only these: a handful of small shrubby trees of the Pea Family, one tall Fan Palm, the famous Elephant Tree, the Desert Willow, one species of Juniper, and two of Pinyon Pine. The last three are not strictly desert trees but they are conspicuous on the slopes of the mountains bordering the deserts on the western side, more of them on Mohave Desert than on Colorado Desert.

This comes out to a dozen, more or less. There are, in addition, a few shrubs which sometimes assume tree form; and trees which go down the canyons on the desert slope of the mountains. Then, too, there are those trees which line water-courses all over the West: Cottonwoods, Willows, Sycamores; but these are trees not solely of the desert. So let's consider our dozen.

Of these, the California Fan Palm, *Washingtonia filifera*, is in a class by itself, tree-wise: in the class with lilies, onions, grass, yuccas, bamboo. It has a different way of growing, a different kind of a leaf, a different kind of root system. This is the only one on our list which is not described as, "small tree, small evergreen tree, small deciduous tree, small tree or shrub" — you can see where our desert trees stand — they're *little*! But the Fan Palm is big; stout trunk, impressive height, enormous leaves, massive silhouette. It occurs naturally in canyons which have year-round moisture, or at seeps and springs out on the open desert. This constant moisture seems to be its main requirement; it is easily grown and widely cultivated throughout the warmer areas of our state. Growing wild you will see it in canyons and oases from Twenty-nine Palms to Northern Baja California.

A taller, skinnier Fan Palm frequently seen along streets and in Parks is the Mexican Fan Palm which does not grow wild this far North. It has smaller leaves, conspicuously slender trunk, and a puzzling name. This one, appearing rather delicate when compared to *W. filifera*, is *Washingtonia robusta*! If you look at the leaves it is easy to distinguish the two — many threadlike filaments hang from the edges of California Fan's leaves, which makes it popular with Orioles; no threads on Mexican Fan, and if the leaves are so high up there that you can't even see the edges the chances are it is the latter,



Native palms (Washingtonia filifera) in a desert canyon of the Sierra Juárez about 30 miles south of the Border.

which grows to a height of 60 to 90 feet at maturity.

Let's have a look at those trees which are a little hard to tell apart. On the Fan Palm you can't miss, but the six spiny, shrubby members of the Pea Family are "look-alikes" except in flower structure. They are all spiny and shrubby; they all, with one exception, have compound leaves divided into many small leaflets; they all have fruits that could be called "beanpods." Then, along with other desert trees, they share these characteristics, which make possible their very existence: wide-ranging roots; small size; long life; and small leaves; sometimes early deciduous (with one exception), stout trunks with tough, hard wood and bark. These qualifications all relate to water in some way, since water is usually the limiting factor in plant growth—given water the desert "will blossom as the rose"—you know the quotation. The roots go far and wide, and deep, to catch the water as it falls, and to tap underground supplies. Small stature means less water is needed than if the tree were large; and long life is essential because of the difficulty of getting started and establishing enough roots to survive the first few summers. Many years, even decades, may pass before the occurrence of a series of seasons favorable to reproduction, i.e., seasons of adequate and well-spaced rainfall.

Stout trunks are in part the result of long life, but it works the other way,

too; without stout, hard-barked trunks these trees could well have been demolished by wind and water erosion. There is an outstanding exception to this, which proves that generalization may be misleading.

Now the foliage. Since the water system in a plant does not parallel our circulatory system, in which the liquid goes round and round, but is more of a one-way street, with most of the water going up, out, and away, the smaller the leaf area and the fewer the pores the less water is lost by transpiration. Some desert plants are nearly or entirely leafless, and some hold their leaves for only short periods, (the early-deciduous ones.) Among the latter are the Smoke Tree, Ocotillo, and the Palo Verde, which often stand leafless for long periods. Their green stems take over the food-manufacturing that ordinarily is done by leaves.

The Smoke Tree, *Dalea spinosa*, must be surely one of the most-painted, most-photographed of Colorado Desert plants, and it could not have failed to be called "Smoke Tree." New growth is a smoky blue-gray, older growth yellowish-gray. Most of the year it is leafless but it has so many stems that it appears as a solid shape. When its brilliant blue-purple flowers cover the plant, in June and July, the effect is of a puff of purple smoke. It looks soft but it isn't, for each of its many, many branchlets ends in a sharp spine. Pods are not more than one-half

inch long, with one seed, or sometimes two. Like other *Daleas*, one of which is called Indigo Bush, this plant, — leaf, stem, and calyx, is dotted with tiny yellowish glands which yield an orange stain or dye, (not Indigo, that word refers only to the startling flower color). Early Indians used this dye to color deer-skin and fibers to use in making baskets. Smoke Trees may be seen in washes all around the edges of our Desert, and into Mexico and Arizona.

Palo Verde, *Cercidium floridum*, is another small tree most often seen without leaves. When present the leaves are few and short, borne just below the quarter-inch long straight spines. Its old name, Palo Verde, meaning "green stick," refers to the bright green color of the branches and even trunks of young trees. Good specimens may be seen along the highway between Kane Springs and Salton Sea.

The brown-barked *Parkinsonia aculeata*, native in Arizona and Mexico, is also often called Palo Verde. This is widely planted throughout Southern California; a handsome tree with showy yellow flowers over a long period, pinnately-divided leaves up to twelve inches long, and many straight, sharp, long spines—up to one inch!

Cat-Claw, *Acacia greggii*, you will meet quite often but you won't want to shake hands with it. Most frequently it is seen as a tangled mound, gray-green when in leaf, otherwise only reddish stems armed with stout curved spines set singly between leaf nodes. Remember this, it is your clue—stout, curved, set singly between leaf nodes. Flowers are yellow, in cylindrical spikes, pods lumpy-looking, due to the construction between seeds. The seeds are flat, shiny, deep brown disks.

This little *Acacia* is one of only two growing wild in California. It occurs in washes and here and there on lower slopes of mountains surrounding the desert.

A number of trees with hard, heavy wood are called "Ironwood," among them this desert dweller, *Olneya tesota*. It has flaky, red-brown bark and grayish green leaves covered with fine hairs. Flowers are small, purplish, pea-like, appearing in April and May, before the leaves. Now look at the spines: these also are stout, and somewhat curved, but they are in pairs, and at the leaf nodes. With or without leaves or flowers you can tell the difference between this and the Cat-Claw by the



Nearly all the older Ironwood trees (*Olneya tesota*) on the desert slopes between the Sierra Juárez and the Laguna Salada have fallen to the ax of the Leñero because their wood is so ideally suited for use in the tortilla factories of Mexicali.

placement of the spines and by the general appearance of the plant. The Ironwood looks more like a tree, less like a thicket. This and the Mesquites have been sources of firewood for generations. The two kinds of Mesquite, *Prosopis juliflora* var. *torreyana*, the Honey Mesquite, (delicious white honey), and *Prosopis pubescens*, the Screwbean or Tornillo, often are seen growing side by side. Both of them provide staple food for Indians and Mexicans, as well as feed for stock, and of course for deer and rodents and larvae of various insects. In size, habit of growth, foliage, and yellow flower spike the two are similar, but the first one, the Honey Mesquite, has leaves with 9 to 18 pairs of inch-long, bright green leaflets, while the Screwbean has shorter leaves with 5 to 10 pairs of tiny leaflets, each less than half an inch long. The easy way to tell the two apart is to find seedpods, the curiously coiled pods of the Screwbean are unmistakable. Range — to Utah, Texas, Mexico.

A good place to get acquainted with most of these thorny subjects, including the outlander mentioned above, is Vallecito County Park.

Let's get away from all those spines! Here's a nice friendly tree you can approach casually, even brush against—the Desert Willow, *Chilopsis linearis*. It gets called willow because of the shape of its leaves; green, very narrow, 3 to 6 or more inches long, deciduous. Perhaps also we could describe the slender branches as willowy, since we have this habit of describing one plant in terms of another, but here the resemblance stops. This is California's only member of the Bignonia Family, (Trumpet Vine) and

its flowers are trumpets! Pretty ones. They are one to two inches long, lavender or pink, with purple veins or markings, and touches of yellow in the throat. The fruits, which at first glance resemble string beans, are not constructed like those of beans or peas. There is a partition down the center of each, which bears the astonishing seeds. These are almost perfect oblongs, flat, dark, with feathers on each end! Oh, well, long white hairs, or copious coma; I like feathers. Habitat: washes or streambeds.

Bursera microphylla, the Elephant Tree, has to be seen to be believed! The picture shows what you may expect: short, stubby trunk and branches, much enlarged toward the base, all covered with bark like tissue paper, peeling to show the bright red layer underneath. Not only strangely colored skin, but it has red blood—oh, where was I? This is a plant! The bark on the branches is cherry red, and the tree has red sap. Leaflets are tiny, or else they just fell off; flowers and fruit unspectacular. Bark — and trunkwise, this is the exception mentioned above, the bark is thin, and the wood is punky. This is our lone representative of a family containing some 500 species, mostly of Central America, Mexico and the West Indies. Its distribution here is restricted to a few spots between Fish Creek and Carrizo Creek on the west side of the Colorado Desert. One group near Fish Creek may be reached by a short walk.

As you go down the grade, any grade, leading eastward into the desert, those rounded large shrubs or small trees you will be seeing will likely be California Junipers. Here, in a country of sparsely-foliaged plants, their bright green color



Elephant Tree (*Bursera microphylla*) One of a small group off the road between Ocotillo Wells and the gypsum mine, on the eastern edge of San Diego County and the Anza-Borrego Desert State Park.

Below: Bees and hummingbirds are out early in the morning gathering the nectar of the Honey Mesquite (*Prosopis juliflora* var. *Torreyana*)



and dense foliage make them standouts. When in fruit, (those berries are really cones), this Juniper is extremely handsome, and worth close examination, because it smells as good as it looks.

Two kinds of Pinyon Pines may be seen in scattered locations along the western edge of the Colorado Desert. These are *Pinus monophylla* and *Pinus quadrifolia*, names easy to remember because they mean just what you think they would mean — they describe the needle arrangement: "monophylla" means single- or one-needle, "quadrifolia" means four-needle. These trees, along with the more widespread "edible," *Pinus edulis*, are the source of the tasty nibble food, Pinyon Nuts, which were and still are a staple food of Southwestern Indian tribes.

All the Pinyons are small trees, for Pines, rarely exceeding 25 feet in height, with heavy, often gnarled or twisted, trunks and branches. Their needles are short, mostly one to two inches in length, and curved inward toward the branches. These needles remain on the tree for four or five years, occasionally as long as ten years. Growth is slow and the trees live to a great age. Usually they occur in thin stands along with Junipers and a few desert shrubs, with lots of space between for the annuals which flower so profusely in early spring, (pro-

vided there was ample rain during the previous November and December).

Pinus quadrifolia has a limited range north of the Mexican border, occurring in scattered stands along the desert side of the San Jacinto, Santa Rosa, and Laguna Mountains. A few grow near Jacumba and Mountain Springs.

Pinus monophylla has a wider range, from Sierra County southward, and into Utah, Arizona, and into Baja California also. So many of them grow with the Junipers on the mountains in and bordering the Mohave Desert that they have given their name to a whole vegetation type, "Pinyon-Juniper Woodland." This fills the niche, as ecologists, say, between the Yellow Pine Forest of the higher mountains and Sagebrush Scrub and Joshua Tree Woodland of the open desert. Here in the south they may be seen on the desert side of the Lagunas from Mountain Springs northward, and on Pinyon Mountain east of Earthquake Valley in Anza-Borrego State Park.

If, when you visit the desert, you are prompted to ask incredulously, "These are trees?," just consider the conditions under which they grow and you will be amazed that they grow at all. And don't snuggle up to a Cat-Claw, but you can love a Juniper as much as you like; you might wind up a little sticky but you'd have a spicy-smelling shirt. ■



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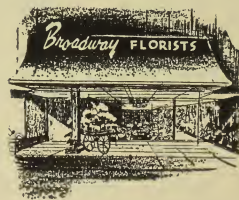
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Garden Societies Donate Plants To Our Zoo

by Timothy Aller
Zoo Horticulturist

San Diego Zoo
Photos by
F. D. Schmidt



*Rhododendrons, Camellias and Cymbidiums
form highlights of plantings at the Rondeval Room.*



*Camellias and Cymbidiums
greet visitors to the Rondeval Room.*

THE ZOO GROUNDS have been vastly beautified the last few months by the addition of many beautiful and rare camellias, orchids, and azaleas that have been donated, mostly by the Camellia Society.

Fern and camellia canyon has a new look with the addition in March and April of this year of an interesting collection of fine varieties of camellias generously donated by Harvey and Margaret Short from their priceless collection at their home in La Mesa. Many 2 to 4 ft. plants have been placed advantageously for the viewing public's pleasure. Also a number of large specimens, 6 to 8 ft. tall are well oriented with our azaleas, rhododendrons and ferns in the canyon. Included in this grouping are several original seedlings—"Masterpiece," "Bride's Bouquet," "Sunset Glory," "Pink Clouds," and "Guest of Honor" all of which at some period in the last few years, have won awards of recognition as worthy introductions on the



*The Rondeval Gardens —
Black-necked swans grace a
pool landscaped with
camellias and cymbidiums.*

Pacific Coast. Zoo gardeners have taken a special interest in the maintenance (watering, fertilization and pest control) necessarily connected to these valuable plantings. Also, Mr. Short and Mr. Lucien Atherton of the Camellia Society are frequent visitors to the zoo. We are going to have a beautiful fall to spring "event of color" for the visitors' appraisal and viewing pleasure. Several fine rhododendrons and many azaleas present a vivid color contrast in with the camellias.

Several container camellias and a good many orchids (also donated through the generosity of the Camellia Society) have been placed around the engawa of the Rondeval Room and immediate surrounding gardens.

Many beautiful camellias have been planted on the street side of the Penguin House at the exit breezeway and along the sides of the Jungle Trail.

The Zoological Society is very grateful for the interest and plants donated through the are now combining to make the plantings at the zoo a truly "botanical garden." The many thousands of visitors to the zoo are in for a "rare treat." ■

*Camellias surprise one on the
turns of the jungle trail.*



PROPAGATION BY PROXY

by Jim Stalsonburg

Editor, San Diego Cactus and Succulent
Society's Espinas y Flores

T WAS CHRISTMAS TIME a year ago when a small group of balladeers, preparing for the seasonal music fest, were gathered in the court yard of San Diego's historic Mission. Monsignor Booth was exercising some of his curatorial duties by showing the group the grounds and discussing the forthcoming happenings that would commemorate the City's 200th anniversary—guided tours by authoritative "Indian-maids," who relate the role of the Mission in the formation of our past; the refurbishment of tertiary portions of the buildings in the compound and garden areas.

High in interest during the discourse was the anticipation of a new Rose garden, featuring the newly developed "San Diego Rose." Exactly how, even in our wildest imagination, it is difficult to see that these thorny things could be simulant with Cacti, but immediately the "better idea" light bulb flashed on in the head of Cactophile Bob Heffenden, local choral and music maestro . . . "Egad, what a wonderful place for a Cactus Garden." Meanwhile, across town several other minds of San Diego's Cactus fraternity were flickering by candlelight, as they plowed through semi-arid fields in search of an appropriate response to the gala 200th occasion. Moments later a union was consummated via the Bell System, and the "better idea" bulbs were glowing like those warm amber lights of welcome. The thought of a Cactus garden at the Mission would not only be aesthetically satisfying, but would be historically significant. Many of the plants were economically important to the early settlers of the

Southwest. Thusly, the seeds were sown, and with the gentle rains of inspiration the idea grew to blossom. What wonders can be conceived by an affair of the mind . . . call it propagation by proxy.

In April, after the danger of frost had passed (not so much a worry for the plants as for the workers), proxy Walter Greenwood led a merry band of revelers from the San Diego Cactus and Succulent Society to the inner cloisters of the Mission to spread a few tons of sand and ornamental rock into desert-like mounds and swales. In a short while the entrance patio took on the appearance of a bit of the back country.

It was truly a remarkable sight seeing Oliver Loyland with his bright blue wheelbarrow making sortie after sortie to the sand pile, where his wife, Sophia, with Herculean efforts put her scoop-shovel through tricks and stunts learned only through many winters back in Minnesota. He paused only briefly at the "organic pile" where "Colonel" Bob Fletcher would add his blessings to the earthy mix; then on his way again down the line to where Walt Greenwood and Bill Waite were stacking Mexican driftwood rock into the mounds like two squirrels working on "piece-work" rates with the remnants of an Autumn's harvest of nuts. Next to them, Warren and Mike Buckner with gopher-like tenacity were gouging out holes, and placing the prickly plants under the artful direction of Eydie Kemp, girl Rembrandt. Bill and Ruth Nelson made like Indians going up and down corn rows stopping at each plant to add just a pinch of something

good; while humming and whistling the tune "A Little Bit of Sugar Helps the Medicine Go Down."

Meanwhile, Elaine Niehaus and Ione Hubner in a David and Goliath type match were grappling two huge Century plants to a draw. Thirteen-year-old Ben Klinefelter with a bucket in hand, looking for all the world like "Jack" on his unpretentious return from the "well," adroitly dashed to and fro upon call with needed materials and supplies; and his mother, Nibby, dressed in a lovely bouclé mesh-knit cream beige sensation, sand-wood patent leather calf-length boots, broad-brim Ecuadorian straw hat with plum and green chiffon band and chintie, and tartan "Green-thumb" gloves added a lot of class to the operation.

It was a wondrous sight, especially to these tired old eyes that witnessed the events of the day perched precariously atop the adobe wall munching on a Bonus-burger with lots of Jack's Secret Sauce, an order of onion rings, a Jackcola, and a hot apple turnover, that was rapidly becoming luke-warm . . . a wondrous sight indeed, because people were doing the only thing that means anything, that "Something" which springs spontaneously from the innermost recesses of our consciousness. Failing to respond, a person drops like an unsecured tile from the mosaic of life; how can we receive when the mind refuses to entertain? Reproach the negative, for awareness, faith and conviction are as real as the Spirit which ignites the vitality that animates everything. ■

Reblooming Iris Show

by Penny Bunker

Inn for the Region 15 Fall Meet on October 11th. These San Diego growers make every effort to acquaint the public with iris. At least, the reblooming qualities of the iris are being tested.

President Mrs. Edward Owen of Leucadia had chosen Mr. Robert Brooks and Mr. William Gunther as Co-Chairmen of the 1969 Fall "cultivar" Show.

Mrs. J. Otto Crocker and Mrs. Donald A. Innis were in charge of the lovely Artistic Section which declared "Suddenly, It's Fall." Their class titles recalling "A Fall Welcome" on a "Chilly Morn" gathering "A Joyous Harvest" going through "The Wooded Hills" ending "By the Fireside." "After the Game" accounted for an array of many beautiful and interesting arrangements. The fellows showed particular interest in the sections "By the Fireside" and "After the Game"—evidently liking to relax by a cozy fire after a sporting event.

Queen of the Show was won by a tall-bearded beauty, "Helen Keller"—a lovely blue iris with cream beard—en-

tered by Mrs. Barber of Vista, California.

Runnerup to the Queen—first chosen this year—was also won by Mrs. Barber with her iris "King's Choice"—a deep midnight blue.

Silver Medal Winner—most first place winners—won by Mr. Robert Hubley of La Mirada, California. Mr. Hubley is Vice-President of the Reblooming Iris Society of the American Society.

Best Arrangement of the Show—won by Mrs. Gardner Kendall with her arrangement titled "A Chilly Morn" featuring a cold-stone white maiden's head with greenery and white iris.

An Educational Certificate was awarded to Mrs. N. Reavis Carrington for her horticultural exhibit. She featured seeds of various types of iris, different bulbs and their planting, showed proliferations on spuria stalks and many examples and charts explaining iris propagation. Thelma can always display something new and interesting to



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educate the public concerning the iris family. No Bronze Medal nor Seedling awards were granted this show.

American Iris Society judges for the Horticultural Section were Mrs. N. Reavis Carrington, Mrs. William Van Dusen, and Mrs. Walter Bunker under the supervision of Senior Judge Mrs. Archie Owen.

Judges for the Artistic Divisions assigned by the Judges Council were Mrs. Roland Hoyt, Mrs. Lyle Carringer, and Mrs. Roy Jones.

Even with the weather playing tricks—a sunny morning that changed to rain before noon then clearing to a nice bright afternoon, many park visitors and tourists viewed over 83 entries entered by 25 exhibitors.

The forecast now is clear sailing for a bigger and better 1970 Spring Show. ■

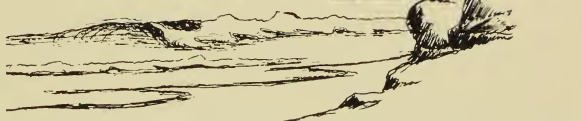
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PAGES FROM A LONG-AGO DECEMBER — *as a salute to the "Christmas Past" of California Garden Magazine, we offer a reprint of*

"GENERAL GARDEN OPERATIONS FOR DECEMBER"

—*California Garden,*
December, 1914

DECEMBER is the month of leaves and litter; the normal shedding with wind and rain cover beds and paths. Where possible this litter should be left and spaded in for it supplies the great lack in our soil of the humus quality. Where it must be removed, such as on paths, etc., it should be preserved in a pit and kept wet till it decays, thus forming the leaf mold, which is the base of most good potting mixtures and invaluable as a top dressing on heavy, sticky soils. It is becoming a common practice in Southern California to cut all orchard prunings into short lengths and plow them under instead of burning them as formerly. This burning was a crime.

Why do we not plant more lobelia in masses and for borders? The variety

Crystal Palace is very hardy and easy to grow. The seed may be sown directly in beds where wanted if kept covered till it germinates, or better, started in boxes and pricked out. The seed is very small and can be sown quite thickly and transplanted in little squares without attempting to separate each individual plant, spacing eight inches to a foot. It can be planted now.

Pansies should go out. Remember that they require very rich soil; no big blooms will come otherwise. The first three inches of the bed may well be at least half well-rotted manure. New hot manure won't do. They require the morning sun and a shelter from wind. The first blooms should be pinched off till the plants are well established.

Sow mignonette. To get a good stand the ground must be kept wet, once the seed is sown and afterward to obtain big spikes, plants must be thinned giving each at least a square foot. The Sweet Scented is the old favorite. Defiance a very large variety, and Machet another good kind. Have a bed under your window.

Put in Stocks, everywhere. Nothing gives so much for so little, early in the year. They require good drainage in the stiffer soils. Pay some attention to color—they can be had in almost any shade from white to a deep blue. Stocks fill in dahlia beds and spots devoted to late summer and autumn bloomers admirably.

Hurry up with your bulb planting, if it is not already finished. It is better to

mulch bulbs well rather than to attempt cultivation, for they should be planted closer together to get the best effect, than is convenient for cultivating. Of course, weeds will grow but that is a good sign of fertility and weed pulling is part of a regular gardener's business.

Mulch your lawn with well-rotted manure run through a coarse screen. There will be weed seeds, but the very bulk of this medium is one of its best features. The constant irrigation necessitated by our dry summers washes the earth away, leaving the grass, roots and all, sitting on the top of the ground; it is necessary to replace soil as well as to feed. Put a manure mulch all over your garden, for the rains to run through. Don't let the theorist without a garden talk to you about our virgin soil needing no fertilizer, nor the agent of the commercial mixture persuade you that stable manure is a back number.

You can move deciduous shrubs, and if your shears are keen and your fingers itch, prune those that you leave where they are. Hydrangeas want severe cutting and sufficient thinning if they are to do their best. Think something of shape, leaving most wood at the back and tapering to the front. These should have a double dose of the mulch. The prunings will root readily if put in sand or even in the open ground.

Tiger lilies and kindred things can be moved to advantage—these bulbs dry out very quickly and are best planted again as

soon as dug. Tiger lilies should be grown much more freely. They do well in the open, and can be grown from the little bulbs that form in the axil of the leaves to flowering stage in two years. Anyway, the bulbs are among the least expensive of the lilies, and the flowers look more at home in our gardens than the Easter lily which is at its best in a pot surrounded by crepe paper and tied with a ribbon.

If your poinsettias are stiff, bare sticks, surmounted with a red top knot, you neglected them during the summer. Then they want water, fertilizer and attention if the leaves are so retained and the crowns brilliant and large.

Have you sown a wildflower patch? If not, why not?

Should the elements be so unkind as to give us a dry spell again causing a need to sprinkle artificially, do so in the morning. When the nights are cool, you would not like to go to bed in wet clothes. Another reason is that the temperature of the water in the pipes is nearest that of the air and earth in the morning and so the shock of its application is least. This time of year plants want moisture applied understandingly. They are not promiscuous toppers. They drink heartily only when they work hard and as they approach the dormant stage their thirst slackens. You can keep the weeds down or not as you wish, and so indicate your real care for your garden and self-respect.

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Vinegar of Roses is of much good use, and to procure rest and sleep, if added to Rose water be used to smell unto . . .

* * *

*"I know a bank where the wild
thyme blows,*

*Here oxlips and the nodding
violet grows;*

*Quite over-canopied with
luscious woodbine,*

*With sweet musk roses, and with
eglantine."*

—A Midsummer Night's Dream

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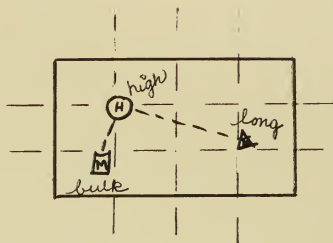
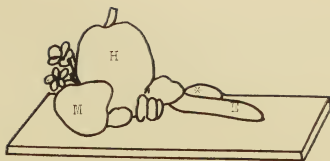
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Morimono

by Barbara Jones

TRADITIONAL Japanese flower arrangements (*ikebana*) consist of flowers and branches. Not so often seen are the lovely arrangements of fruits and vegetables with a few flowers or colored leaves (*morimono*) which are done in the harvest season.

Each of the different schools of *ikebana* in Japan have a different placement of the material, but the one shown here can be easily done, fits in well with any style of western home, and the rules can be effectively applied to Christmas decorations using a large candle for "heaven" and various shaped balls for the other material.

The material can be placed on any shape tray, mat, etc. or a table top or the mantle—just draw the imaginary lines as shown in the diagram. If your base is irregular in shape, make an imaginary outline which encloses the whole base and then draw the imaginary lines. (If one is a beginning arranger it is sometimes helpful to draw the lines in chalk and then erase them when the arrangement is completed.)

Now—go dig all of the fruits and vegetables out of the refrigerator; fruits and vegetables can be combined. Pick the tallest thing for "heaven" (pineapple, celery, pumpkin, eggplant, etc.) and

place it in the proper position. It should be placed so that the stem is pointing up. Next stick the bulkiest thing for "man" (small cantaloupe, head cauliflower, grapefruit, etc.) and place it in position. The stem should tilt slightly down and toward "heaven."

Third, pick the longest thing (cucumber, carrot, banana, etc.) for "earth." The stem should be towards "heaven" and the tip should be placed in the position shown in the diagram. Lastly, fill in with other produce keeping the inner line of the triangle M-H-E clean. It should look full and higher near "heaven" and taper to "earth." It is often helpful to use a small bunch of grapes in position "*". There should be no gaps. Seven things make a very attractive arrangement.

To finish the arrangement two or three small flowers with leaves or a spray of colored leaves should be placed either to the right or left of "heaven" and lower than "heaven." These can be placed in a pin-cup holder or a needle point holder placed in an aluminum foil cup.

If it is to be seen from the back, remember to add something to make it pleasant—another flower or leaves perhaps. For good luck you must have an odd number of things (and a bit of floral clay!).

*Editor's Note: As we go
to press, word has
come of Mrs. Barbara Jones'
appointment as the next
editor of CALIFORNIA GARDEN.*

*Our congratulations and
best wishes to Mrs. Jones.
We know she is well-qualified,
and that you will enjoy
her work.*



A southerly overview of the Torrey Pines Reserve and Annexation from the Annexation, across the adjoining salt marsh area. Trees, cliffs, flowers and aged-old nature for study and enjoyment. Cut loaned through the courtesy of the San Diego Physician magazine.

IF TORREY PINES ARE GOOD, more Torrey Pines are better. The present Torrey Pine State Reserve includes within its boundaries some 3000 trees, about half of all the wild Torrey Pines in the world. The acreage proposed as an addition to the Reserve would include about half of the remaining trees, which are presently on private property.

The plan is to purchase this land with matching private and State funds. To date more than $\frac{2}{3}$ of the \$900,000 required from the private sector is promised or in hand.

California Garden Clubs Inc. at its State Board meeting held in San Diego November 12-13 passed a resolution in support of the Torrey Pines Extension.

Member clubs are urged to take immediate action. The crux of the matter is that the State has put a time limit on the availability of its \$900,000. Funds or pledges are needed before Jan. 1, 1970.

The money is being held in trust by the Torrey Pines Association. Gifts are tax deductible.

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on Page 35

Pre-Emergence Herbicide for Spurge

Spotted spurge is a persistent annual weed which is a pest in many areas in San Diego County. Spurge is a prolific producer of seeds which seem to sprout throughout most of the season.

Several materials have been reported to be effective for killing spurge.

Neburon and monuron are pre-emergent herbicides that have favorable reports for controlling spurge. Apparently the time of application is critical for they have little or no post-emergent effect on spurge. The manufacturer of these products recommends that applications be made during January and March for the best results for the spurge.

These herbicides can cause severe injury if not used properly. Follow the directions on the label very closely. There is little danger when the herbicides are used properly.

Keep in mind that diphenamid is a pre-emergence herbicide for control of grass in dichondra and this chemical cannot be recommended for control of spurge in dichondra.

The University of California research workers are conducting studies to find a selective pre-emergence control of spurge in dichondra.

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tall fescues monuron

Bentgrasses DMA**, dalapon,
2, 4-D**, 2, 4, 5-T, sil-
vex**, neburon, monuron,
calcium arsenate**, lead
arsenate

Bermuda- Monuron, dalapon, sil-
grasses vex**, Tupersan

Dichondra DMPA, DCPA, 2, 4-D,
2, 4, 5-T, silvex, lead
arsenate**

*Amitrole and methyl bromide will kill all types of turf.

**These turf grasses are moderately sensitive to this herbicide.

Planting Landscape Trees and Shrubs

The following article by Dr. F. K. Aljibury, farm advisor in Orange County, suggests a method of planting trees and shrubs. I am including this article because it may be of use to people in some areas of San Diego County. However, it should be pointed out that this method may be of limited value on San Diego's marine terrace soil.

"Care In Planting Shrubs and Trees

Often shrubs and trees are planted in soils having different properties than where they were grown. Many times this condition creates serious problems in watering which can cause the loss of the plants. Most container plants are grown in 'light texture' soils or mixes, and when transplanted to clay soils this problem occurs. Many gardeners advocate digging large holes, filling them with soil mix, then transplant. However, it was found that this method is not only expensive but also unsuccessful. Water passes well through the prepared mix, but it may accumulate in the bottom of the hole causing poor aeration, diseases, and root rot.

"In similar conditions it is better to dig enough holes for the transplants and use a method called 'vertical mulching.' This is accomplished by digging 1-inch-diameter holes around the plants, 18 inches away from the root ball, 2 feet deep and 18 to 24 inches apart. These holes can be drilled by various kinds of augers and filled to the soil surface with organic matters such as wood shavings, peat moss and others. It is important *not* to cover these holes with soil from the transplanted area."

—F. K. Aljibury,
Farm Advisor, Orange County

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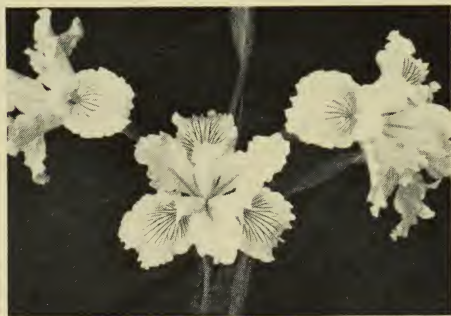
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Dr. Lee Lenz, Director of the Rancho Santa Ana Botanic Garden, was photographed in the Spring of 1969 while admiring a clump of spuria irises in bloom on the grounds.

The Rancho Santa Ana Botanic Garden

by Bill Gunther



The spectacular "Ripple Rock" is a hybrid iris which was developed from wild California species by the Rancho Santa Ana Botanic Garden. It is now sold by specialty nurseries for home use.

MOST CALIFORNIANS "head for the hills" if they want to see the native trees, shrubs, and wildflowers of their beautiful state. They shouldn't.

Instead, they should head for the Rancho Santa Ana Botanic Garden. There they would see far more native species—with no empty beer cans underfoot, no poison oak, no admission charge, no parking fee—and with all the plants labeled. Most of the plants are grouped in natural settings and associations, as they are found in the wild.

The Rancho Santa Ana Botanic Garden is located in Claremont, which is up route No. 395 from San Diego. It is between Los Angeles and San Bernardino. The garden includes 83 acres of plantings devoted to research, conservation and education in the field of California botany.

Major purposes of the Garden are to preserve the native California flora; to replenish the depleted supply of some of the rare plants which are in danger of becoming exterminated; and to bring together for public enjoyment and study a large collection of native California plants. This is done under the magnificent backdrop of the nearby San Gabriel Mountains and snow-covered Mt. Baldy.

The main blooming period in the garden is from late February to the middle of June. Particularly striking is the ex-



PHOTOS
BY
BILL GUNTHER

Centered amidst a setting of many acres of natural landscaping is the modern administration building.

tensive collection of multi-colored wild irises. Also notable are the plantings of manzanitas, California lilacs, fremontias, tree poppies, and bush anemones. Annuals for which California is so well known also are plentiful.

The Rancho Santa Ana Botanic Garden also promotes research in the fields of botany and horticulture, and conducts a teaching program. Graduate work in botany leading to the MA and Ph.D. degrees is offered in collaboration with the Claremont Graduate School and Pomona College. One portion of the garden is an experimental area which is used for testing selected clones and/or varieties of California native plants before they are released to commercial trade. The garden has made a number of plant introductions of its own; these are making valuable contributions to California horticulture.

Of particular interest to California homeowners is the home demonstration garden. This area shows how California native plants can be used effectively in landscaping small city lots. Information about the plants, and about sources of plants, is available in printed literature distributed at the garden.

Apart from the public gardens, the Rancho Santa Ana Botanic Garden includes research laboratories, classrooms, a library, and a systematic collection of preserved plants. The library contains approximately 25,000 volumes dealing with botany and horticulture from all parts of the world. The systematic collection contains over 500,000 specimens and is held



jointly with Pomona College.

The Rancho Santa Ana Botanic Garden is open from 8 a.m. to 5 p.m. every day of the year with the exception of Thanksgiving, Christmas, New Year's and the Fourth of July. On Saturday afternoon and Sunday a garden attendant is on duty on the grounds to answer questions and to assist visitors.

Next time you are in the mood to wander among wild plants, why not head for Rancho Santa Ana Botanic Garden rather than for the hills? Your outing would be less strenuous, more comfortable and far more informative. ■

Above: Flowing streams and natural ponds, featuring beautiful specimens of wild California water plants, are a highlight of the Rancho Santa Ana Botanic Garden.

SUCCULENTS OF THE SEASON

AGAVE. A-gay-ve says Webster, another source pronounces it ag-ah-ve. Commonly it is a-gah-ve. Agaves are natives of the Americas but have been

I am an AGAVE. My family consists of nineteen genera and about 300 species. My flowering panicle reaches for the sky, sometimes attaining a height of 35 feet or more. I've brought it down into the picture for you to see.



naturalized in Mediterranean countries for so long that artists have been misled into painting them in the background of classical Mediterranean scenes. The 300 known species have been recently

Continued, page 26



Middle Peak, Cuyamaca, looking toward San Diego in the late afternoon. Photo by Betty Mackintosh.

Southern California Winter

*The seldom showers of the quiet rain
Fall welcome on the dried, brown hills,
Plucking up forgotten green of grass again
Wherever the wetness sinks and fills*

*Adobe cracks . . . Acacia trees that were black shapes
Fling golden streamers on the air
In discord with mesembryanthemum's wild capes
That hide the bulldozed slopes' rough tear.*

*Along each fence the sweet peas twist and lift
Their darkening buds, not shaking free
From scented snow, the citrus blossom drift
That stirs the lust in every bee.*

*Ablaze each place the winds have blown their seeds,
Nasturtium push their leaves aside.
Camellias blush and bloom and burst and bleed
Beneath the bougainvilleas' pride.*

*In shadows, the gargoyle succulents thrust out
Colored, improbable capitulum.
Over every wall, lantanas fall and shout
In purple tones that Spring has come.*

*Yet what's the time? The new year's just spread wing!
But Summer served as long as able . . .
Gone yesterday with one last offering
Of roses for the Christmas table.*

—Jane Tylor Field, La Mesa, California

classified by some authorities as a family all their own—the Agavaceae, but they are mostly thought of as members of the *Amayllis* family.

Undoubtedly the best known of the genus is *Americana*, the "Century Plant" and for this plant the name Agave was borrowed from the Greek, meaning noble, illustrious, admirable. Certainly the first sight of *Agave Americana* in a towering glory of bloom is enough to make you catch your breath as you follow the magnificent stem up, up and up to 25, 30 and even 35 feet of candelabra-like inflorescence.

Agave Shawii is native to northwest Baja, growing on bluffs along the coast. It has also been found in southwest San Diego County near the coastal boundary. At one time it had wandered as far north as Point Loma but is apparently now extinct there. Collected completely out of existence, one may suppose, for it is a beautiful plant and much coveted. Along the Ensenada Highway on our collecting trip last fall we saw *Shawii* by the seashore and lolling about the landscape, creeping under fences, one offset following another. Possibly this was the very locale where the exploring Mr. Shaw, since lost in the mists of obscurity, first discovered his namesake and brought it to the attention of the horticultural world.

Medium in size, *A. Shawii* is about two feet in diameter, growing taller than it is wide and eventually reclining with rigid, dark green, glossy, openly concave leaves measuring eight to twenty inches in length and five or more inches wide. The leaves form dense rosettes with garnet-red teeth, variously straight or curved and needle-sharp, graying with age and connected with a horny border lending a lacy scallop to the edge, narrowing suddenly to a spiny point several inches long.

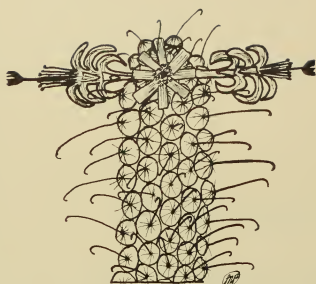
The teeth imprint a shadowy pattern of curious design on the outer leaves.

A. Shawii blooms from May to December. The trunk-like stem with buds and bracts of purplish-brown resembles a giant stalk of asparagus and it shoots up almost as rapidly to a height of ten to twelve feet. The funnel-shaped chattrouse flowers, each three to four inches long, bloom in congested panicles. Hand-some three-valved, oblong seed capsules in clusters follow, which are collected by flower arrangers and pod people. The flowering stalk comes from the growing tip and so dies, completing the life cycle. Perpetuation is ensured by the many offsets as well as by seed.

Agave Goldmaniana is similar except that it is larger with more ample inflorescence, few or no offsets. It is found in a more southern and inland location. *Agave Sebastiania* perhaps evolved from *Shawii* according to the information in August Breitung's study of the Agaves. This exoteric handbook is available in our library as *National Cactus & Succulent Yearbook* for 1968, documenting the variations within the species of *Shawii* with six photographs.

San Diegans have no problems with culture as Agaves grow steadily in seemingly impossible conditions of adobe soil with scant rainfall. According to the authorities however they enjoy good light, sandy loam and more water in summer. Agaves are remarkably tough and adapt beautifully to landscaping and they do well in pots.

—Nibby Klinefelter



appearance and they may be angular. The areoles at the tips of the one-third inch tubercles are woolly when young. They develop seven to nine reddish-tipped white radia spines and a one inch hooked central spine. The central spine is a solid reddish-brown color. The radials usually fade to gray with age.

This cactus is spectacular when in bloom. The flowers are scarlet, ringing the top of the stem. The flowers are zygomorphic (irregular) and are borne from the axils. In many respects the flowers resemble the flowers of the Christmas Cactus.

This cactus requires full sun for best growth and flowering. One reference to this plant indicated that it would root along the stem when it touched the ground but this was not included in any of the descriptions I have read. I have had no personal experience with this plant so cannot speak from observations.

Dolichothele Longimamma

(Dol-i-ko-the-le lon-ji-mam-a) is a very common cactus in cultivation whether it is known by this name or as *MAMMILLARIA LONGIMAMMA* (mam-i-lar-i-a). The name in either case is quite



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(See Page 8)

Cochemia Poselgeri

Although not considered to be a rare cactus, *COCHEMIA POSELGERI* (kō-kem-i-a po-sel-ger-i) is seldom seen in cultivation. It is native to Baja California del Sur. The genus is named after an Indian tribe of the area and the species is named in honor of Poselger an early plant collector.

The many stems of this cactus may be up to six feet long and a little over one inch thick. They sprawl or hang over the ground and rocks which might indicate that they would do well in a hanging basket. They are usually dark green with blue tone, and may blush red in the summer. There is dense white wool in the axils. The conical tubercles are spirally arranged and somewhat warty in

redundant since *dolichothele* means "long nipple" in Greek, *mammillaria* means "nipple" in Latin and *longimamma* means "long nipple" in Latin! If you haven't gotten the idea that this cactus has long nipples or tubercles by now, go on to some other article. The genus *Dolichothele* was created by Britton and Rose for three *Mammillaria* species but Marshall and Bock returned the species to the original genus. The plant was originally named by De Candolle in 1828, so this is no recent discovery. No one, apparently, agrees with anyone else on the proper botanical name for the plant at the present time.

This cactus is a pretty thing, especially when in bloom. The flowers may be up to two inches wide and are a brilliant yellow. The plant is known as a profuse bloomer, so you can expect several flowers at a time. The tubercles are a grassy green and are very soft. They are up to three inches long and have a tuft of spines at the tip. The one to three central spines are needle-like and the five to seven radials are flexible and nearly hair-like. All spines are yellowish. The young areoles also bear white wool. Amazingly, the tubercles will produce roots and eventually new plants if cut off and treated in the normal manner. Borg (in *CACTI*) states that the plant will propagate by forming new plants from the areoles, although I have never seen this myself.

DOLICHOtheLE LONGIMAMMA is easily grown and may be adapted to growing in either partial or full sun in our area. It is not particular in its soil requirements either. Several species of mams are in the same group insofar as tubercles, flowers and cultivation are concerned. These are *M. BAUMII* and *M. CAMPTOTRICA* (bird's nest cactus). All of these would be placed in the genus *Dolichothele* if you tend to be a splitter in classification.

—Dr. Lee N. Phelps

(The foregoing article and pictures come to us through the courtesy of *Espinas y Flores*.)



Book Review

The Cacti of California by Lyman Benson. Stanford University Press, Stanford, Ca. 1969; 244 pages and 8 color plates, 191 illustrations, \$7.95.

Lyman Benson's new book *THE NATIVE CACTI OF CALIFORNIA* is for laymen as well as botanists. All plant enthusiasts will find the book instructive. The book represents mile upon mile of leg work, research in depth, thought evoking discussions, apt illustrative material in the form of photographs from several sources, color plates, self-explanatory topo maps with keys, and superior line drawings. The book at one point takes the reader back to the first recorded sighting of cacti in California at Santa Barbara in 1793 by Archibald Menzies, surgeon-naturalist aboard a boat. From there the reader is at liberty to study a challenging plant family according to his own interests by using the book as a guide.

The first 30-page portion of the introduction provides the reader with valuable background information and material regarding structure, forms, identification, classification, naming and geographic distribution of California cacti. As the pages of the book are turned, many mysteries and secrets of the family are disclosed in easy-reading detail. It makes one feel that Lyman Benson not only has located, identified and inventoried all species in the state, but he also has retained a close and continuing rapport with them to the extent he may have personal knowledge of many individual specimens in out-of-the-way areas.

Line drawings by Mrs. Lucretia Hamilton of Tucson are delightful. She portrays structure detail understandingly—detail which is so often obscured in photographs. "Sticker fear" vanishes and close study is invited by her artistry. Her drawings are beautifully done and to the "point."

Main thrust of the book is the 144-page center section titled, "THE CACTI." It is a clear, complete and concise report on genera and species found in the state. It fills prior information gaps.

Book Reviewers Welcome!

Please share knowledge of gardening books, new or old, with your gardening friends. The editor will be glad to receive any book reviews.

It is not burdened with tiring detail and it is studiously illustrated. Topo maps, region by region, or county by county, simplify efforts of the occasional collector or student. One must conclude that if a species isn't described in the book, there's no use looking for it on the landscape.

Two 8-page separated, unnumbered color plate sections reveal photographic excellence. Individual photos endear one to the Family but they are inserted and used in a manner which gives one the feeling there is a gap between them and the text, or to use modern-day terminology, they are "segregated."

Biographical data on authorities in the field, including the author, is complete. Words not familiar to some readers other than botanists are covered in a glossary. The index includes plant names in italics denoting particular genera and species names which are "not accepted." The author says "classification is no simple matter." One understands the reasons for frustrations when he attempts to identify and name species in his own collection by referring to different published works. If you are not fully aware of the many problems, you will be when you read about the "chokecherry" on pages 23 and 24. When it comes to naming cacti, one concludes that what is wrong with plant names is people.

It is interesting to know that on the same day the author received his first copy of the above-described book from Stanford University Press, he also received his first copy of a concurrent publication from the Arizona publisher describing cacti of Arizona. A unique experience. Yet the two "simultaneous" publications impart to each other additional value and weight. Titles of the two books do not limit them to restricted areas as the titles would suggest, they contain information applicable to the study of all plants. Both deserve top ratings among publications pertaining to a very unusual plant family—FAMILY CACTACEAE.

—Walter R. Scott



Calendar of Care

PLANTS AND THEIR ENVIRONMENT

George James
Garden Center Feature Writer

OUR LAST INSTALLMENT dealt with the need of proper irrigation of plants. It told of some ways in which the gardener could learn if the water applied was wetting the soil deep enough and how to determine the frequency of irrigation. This article will continue from that point and provide additional information which will aid the gardener in his determinations of how frequently and how long to apply his irrigations.

In the coastal area of our county, lawns will use one inch of water a week during the summer months. Lawns in inland portions of the county will use one and one-half inches of water, and these amounts will be doubled in extra warm or dry periods. An inch of water is water equal to the amount that will cover the lawn area under consideration to a depth of one inch. These amounts may be used as a guide of how much water to apply to your lawn.

During summer months, shallow rooted plants, such as annuals, ground covers, and small shrubs need to have the soil in which they are growing wet to the depth of at least one foot at each irrigation, if desirable deep roots are to be developed. Such plants, when growing

on a sand soil will need to be watered, with enough water to wet the desired depth of soil, every four to six days. When these plants are grown on a clay soil they will need water every ten to twelve days, and when on loam soils, the frequency of irrigation will be half way between that of sand and clay. Medium sized shrubs, small trees, rose bushes, and large ground cover plants will develop a good root system if they are irrigated so the soil is wet at least two feet in depth at each irrigation. Plants of this size growing on sand soils will need irrigation every seven to ten days.

When these plants are grown on loam soils they need to be irrigated every ten to fifteen days; and when grown on clay soils, every fifteen to twenty days. Mature, large plants will develop much deeper root systems than those already described. Examples of which are trees, large vines, large shrubs; when growing on sand soils will need to be irrigated every fifteen to twenty days; when growing on loam soil every twenty to thirty days; and on clay soils at least thirty days between waterings. These plants should be irrigated so the soil is wet from three to five feet in depth, depending

upon the kind and size of the plant being irrigated. This information is intended to be used as a guide only, and the frequency and duration of the irrigation should be established by use of the probe or some other method that will reveal the need for water and indicate the quantity of water that needs to be applied to wet the desired depth of soil. Soils which have a compact layer below the surface cannot be irrigated to wet the desired depth when the compact layer is closer to the surface than the desired irrigation depth. When such conditions exist one must irrigate carefully to prevent the accumulation of excess water on top of the compact layer of soil. The excess water will increase in depth with each irrigation until the lower roots of the plants are surrounded and the air blocked out, and then damage will occur to the most delicate roots which can be reflected by die-back or leaf drop, and in severe cases, the death of the plant. These soils must be irrigated with care and it is wise to use plants that have the greatest tolerance for excess water in the soil.

The quantity of water applied in an irrigation is just as important as the frequency of the irrigation. There is a great difference in the rate at which water penetrates the different kinds of soil (i.e. sand, loam, or clay) and also a great difference in the way these soils hold or retain water.

Sand soils need three quarters of an inch of water to wet each foot of depth; clay soils need two and one-half inches of water to wet a foot of depth; and loam soils are between these two in their needs. This need in loam can vary, depending upon the size of soil particles in the loam under consideration.

When the gardener knows how long it takes his sprinklers to deliver the desired number of inches of water to his plants, he knows how long he needs to operate his sprinklers to wet his soil to the desired depth. It is not possible to offer general information that is reliable on this aspect of irrigation. The kind of sprinkler being used, the size of the hose being used, the gallons-per-minute and the pressure that exists or is used influence the rate of delivery.

It is not difficult for the gardener to make this determination for himself. Three to four containers are necessary, which can be of metal, glass, or plastic, as long as they are the same size and shape, and have the same size opening. These

containers are placed in a line along the radius of the sprinkler pattern. Several containers are suggested because sprinklers usually do not deliver the water evenly to all parts of their pattern; there may be more water applied close to the sprinkler and less on the outside of the pattern, while other sprinklers may apply the water in a pattern the reverse to this. If several containers are used this fact will be revealed and the average of the pattern established. When the containers are in place in the sprinkler pattern the water is turned on and the time noted, and when an inch of water has been collected in one or more of the containers, the time for the system in use to apply one inch of water is known.

This information above is a valuable guide to the gardener, but because of the difference in soils, should not be relied upon entirely. There are seldom pure sands. Often the soil is a combination of these two. There can be many combinations, each differing from the other in the way it holds water. Thus it is suggested that the soil sampling procedure described earlier be used to check the effectiveness of the irrigation program being used. Neither over-irrigation nor under-irrigation are desirable for plant growth. It is also suggested that periodic checks be made during the season to be sure the program being used is meeting the needs of the plants.

When the use of the probe of the inspection hole reveals a compact layer or strata below the surface and drainage problems have arisen, or are anticipated, the problem can be corrected by breaking up this layer and mixing in soil amendments or humus which will prevent the layer reforming.

When these compact layers occur beneath plantings of trees and shrubs, and the removal of these is not practical, the use of the holes as was described in "Verticle Mulching" in the August/September issue of the CALIFORNIA GARDEN, if the holes can be driven through the compact layer, will improve the drainage of the lower soil and make over-watering less likely.

Irrigation of clay or adobe soils, especially those on a slope, requires almost continual watching on the part of the gardener to prevent the water running off. This is due to the compact nature of these soils which causes them to take water in slowly. Water should be applied as slowly as possible. This occurs when a mist-like spray is used. Even then, the surface pores will become filled with water and run-off will begin, and this situation is avoided by running the sprinkler for only a short period of time, moving it to a new area, and returning later to the original area to apply more water after the water at the surface has moved downward into the soil, making further irrigation possible without run-off for another short period of time. Often water will need to be applied several times to wet the soil to the desired depth. The rate at which water will soak into these soils can be increased by working humus and soil conditioning materials into the surface, where this is possible. Soil between shrubs and plants can be lightly cultivated before watering to break the crust that forms and which reduces the rate of water penetration.

Lawns and ground cover plantings which are growing on soils that have a lot of clay in their make-up can become compacted from traffic on them, and as a result the water enters the soil slowly, and there is a great deal of water wasted by running off. Soil amendments, such as gypsum, which cause a temporary increase in the size of the pores, can be used from time to time, and will improve the situation. There are other products, usually called "Soil Penetrants" which are combined with many liquid fertilizers, or which may be purchased without the fertilizer ingredients, and which will for a short period of time increase the rate at which the water enters the soil.

The use of humus is usually not possible because the surface of the soil is completely covered with plant growth which prevents the mixing of the humus with the surface soil, and this mixing is necessary if much benefit is to be obtained from the humus.

Lawns may have uneven surfaces and in such cases the water runs from the high places to the low places and the growth and color of the lawn is uneven, being of a good color and growth in the low spots and thin and poorly colored on the high spots. The soil amendments and soil penetrants just mentioned will help some in such cases, but the most effective way of creating even water penetration and growth is to make holes in the areas where there is poor water penetration.

A tool which will remove cores of soil, instead of creating the hole by compressing the soil, as a probe would, are the most effective. A tool (called an aerator) has been devised for this operation. Or, a soil tube, mentioned as a tool to check water penetration, can be used. Holes for this purpose should be about one-half inch in diameter and at least four inches deep, and are better if they are six inches deep, and spaced about six inches apart. These holes need not be filled, but if they are filled, should be filled with a coarse humus that will remain uncompacted, leaving plenty of holes through which water and air can enter easily. The soil in these dry areas may be so hard that it is not possible to make a hole four to six inches in depth. If such is the case, make the holes as deep as possible, then water, and come back after the water caught in the holes has softened the ground so the aerator can penetrate to the desired depth.

Large trees or shrubs that are surrounded with lawn, ground cover, or paving, and where deep watering is difficult, may be watered with a sub-soil irrigator. This is a pipe about three feet long, with perforations at one end and a coupling so it may be attached to a hose on the other. Commercially manufactured models of these are available, and usually have a valve at the hose connection with which the water flow can be regulated, and may have a chamber into which a fertilizer cartridge can be inserted and the plant nutrients placed well below the soil surface where it can be found by the deep roots of the plants and trees.

The sub-soil irrigator is inserted into the ground to the desired depth and then the water is released where it does the most good. Most of the active roots on trees are found in the zone just outside of the spread of the head of trees.

SHARE YOUR FLOWER AND PLANT IDEAS!

We welcome readers' contributions. If you have an idea for an article you'd like to write, phone the editor, who will be glad to assist you with it. Or, pass on those handy tips we all enjoy running onto; write a letter to the editor if you have something to say that you think our readers would like to hear. We enjoy hearing from you, and welcome new contributors.

This is the most effective area to place both fertilizer and water. Four or more insertions of the sub-soil irrigator should be made around each tree or shrub, and the holes created by the sub-soil irrigator need not be filled after the irrigation. If they are filled, a loose coarse material should be used. The use of a mulch on the surface of the soil, where it is possible, will reduce the amount of water needed to supply the needs of the plants by keeping the soil cool and reducing the evaporation of water from the surface of the soil. A mulch also delays the collecting of alkali salts into concentrated layers in the soil, which cause more damage to plants than if the alkali salts were dispersed throughout the entire soil mass. A mulch of organic material will enrich the soil and cause a slight and gradual improvement in the physical structure of the soil beneath it. Any organic material that does not bring weed seed into the garden and is not infested with insects or diseases that are harmful to the plants may be used.

Garden areas in which the appearance of the bed is important can be mulched with ground bark, which is available in chunks of different sizes, so a size suitable for the area being mulched can be used. Bark will decompose and supply all the advantages listed for an organic mulch.

Where appearance is not of prime importance, less attractive materials, such as straw, shavings or other wood products, or rotted manures may be used, and all the desirable results gained. Stones make a good mulch, except there is no noticeable decay, so the food and soil improvement advantages are not present.

Irrigation is one of the major garden activities a greater part of the year in this area, causing additional work and creating an expense in the garden.

This and the preceding article have dealt with the relationship that exists in the garden between the plants, the soil, and the weather. If you develop a knowledge of these factors, you will irrigate more skillfully (which should result in less work, less water used, and better plant growth.)

Thought, practice, and observation on the part of the gardener are necessary to create a program of irrigation which will satisfactorily meet all the conditions that exist in his garden. Good luck! ■

DAHLIAS

by Larry Sisk,
San Diego County Dahlia Society

FOR MOST DAHLIA GROWERS, next summer's garden hopes are in storage. Those hopes are the roots of favorite varieties saved from last season. They will be planted beginning in about mid-March and continuing through April and May.

For the dedicated hobby grower and the experimenter the summer garden is starting now, in addition to the stored roots.

January is the time to get the business of taking cuttings underway.

The procedure starts by withdrawing selected roots from storage and putting them on the starting bench. So begins the cycle of causing the selected roots to send out sprouts which will make cuttings that will grow into plants. With the cuttings, the grower can produce as many plants of any variety that he wants—for himself or for his friends.

Taking cuttings is an economical way to get a number of plants from expensive varieties, especially those new introductions that may cost up to \$15 or more for just one root.

In starting the cutting bench the idea is to induce sprouting of the selected roots as soon as possible. Heat helps. The ideal is to have a box of sand or peat moss with an electrical cable controlled with a thermostat. Set the thermostat at 65 to 75 degrees.

Moisten the sand or peat — moist, not wet. Too much dampness will cause the roots to rot.

Tag the roots so they can be identified without lifting them once they are placed in the starting medium. The roots may be arranged with only inches be-

tween them and inserted about half way into the medium.

Keep the crowns of the roots free, and if possible with the eyes up. The sprouts will appear in a few days, and grow quickly. A well-lighted spot for the starting box is desirable because darkness will cause the sprouts to be spindly.

While waiting for the growth to start, preparations may be made to take care of the cuttings. If the starting box is to be used, a section containing sterile sand or other medium should be reserved.

Or, flats of the starter medium can be prepared; even pots can be used. Flats and pots can be kept on the starting box to take advantage of the heat.

If sterile sand is desired for flats or pots, small quantities may be treated with a soil fumigant two or three weeks ahead of use. Or, soil drenches such as Consan or other products obtained at nurseries may be used without the fumigant waiting period.

For just a few cuttings, the pot method is recommended. By using an 8- or 10-inch pot filled with sand and a 2-inch pot corked and filled with water in the center and even with sand, room will be provided for 10 to 20 cuttings or so. The small pot will keep the wet sand in the larger pot at the correct moisture level to induce rooting.

As soon as the first sprouts are about 3 inches tall, they may be taken. Use a sharp knife or razor blade. Cut the little plant just below the first definite node or joint, between the node and about an eighth or sixteenth of an inch from the mother root.

Dip the severed node in water, then

into a rooting hormone such as Rootone, and then insert it into the sand, thoroughly wet at the beginning. Punch a hole in the sand with a pencil just enough to cover the node—about half an inch. Be sure to seat the node end of the cutting in the bottom of the pencil hole, firm the sand around it, and then when all cuttings are taken each time, lightly water to settle all the sand.

With heat around 65-70 degrees, good light and just enough constant moisture, the cuttings will root in two to three weeks. You can tell by the perky look of the cuttings.

If box heat is not available a warm spot will do, but it may take a few days longer.

The cuttings may be lifted carefully and replaced to see how the rooting is coming.

Once rooted, the little cuttings may be transferred to individual pots—potting soil, or good garden soil this time. By holding the cutting in one hand, the soil should be drifted around the little root system to growing depth and firmed, but not packed.

Give the plant a good start by thoroughly soaking the pot from bottom up. After that, water only when the soil is dry.

The small plants should be coddled for a few days and then put in a protected place, such as a cold frame, to harden off for a couple of weeks or so. Then they may be planted in the garden.

Once the first cutting is taken from a root, two new sprouts will appear. After they are taken and put in the rooting medium, four sprouts will appear, and so on. When enough plants of one variety are obtained—usually a maximum of three cuttings—the mother root, with one sprout allowed to remain, may be planted in the garden.

While the roots are producing sprouts they may be sprinkled with a liquid fertilizer to produce more robust growth. Fish emulsion is good.

In taking the cuttings, sanitation is recommended. Dip the cutting tool in a disinfectant such as a Lysol solution, or a strong bleach solution, between cuts. Clean water should be provided for dipping the cuttings and for the wetting down processes.

Whether the grower needs the extra plants or not, mastering the art of taking cuttings is reward enough. ■

FUCHSIAS

by Annabelle Stubbs

MOST OF OUR FUCHSIAS are beginning to go into a period of semi-dormancy now. For the fuchsia grower living along the coastal areas where there is no danger of frost, or for those who have dependable protection such as a heated glass house; the main pruning of the year may be done now. If you have new growth starting this may be used to start cuttings for new plants. When starting cuttings be sure to mark them at the time as it is almost impossible to remember the variety later.

For those in areas that are subject to frost it is better to wait to prune until approximately the end of February, or when all danger of frost is past.

Watering is now at a minimum, but the plants must not be allowed to become dry. Watch your plants and check them for dampness. During a Santa Ana condition the bright windy days are very drying even though the weather may be cool. Also check during rainy periods as sometimes the rain doesn't get to the soil in a hanging basket or pot. Before a rain, check that you do not have a potted plant under the eave drip-line, as this could wash out the planting medium in the container.

Fertilizing is not so important at this time, as the plant is using very little food. However if you use a liquid fertilizing system the plants may be given

a half strength feeding once a month.

If you are given a blooming fuchsia for Christmas put it in a warm protected spot, being careful as to the exposure. The winter sun can burn foliage too. Keep it watered, and enjoy it. The off season bloom is usually quite lovely and sometimes larger and more brilliant than the regular seasonal bloom. When it has finished blooming it may be pruned, as above. If it is a young plant pruning may not be necessary. An all over pinching back may be done instead. The yearly pruning is done to remove the old woody branches. If your gift fuchsia is an upright bush, tree or espalier it may be put right in the ground. The winter rains will get it off to a good start.

The main pest to watch for now is aphid, particularly on new growth. These may be temporarily controlled by spraying with a sharp spray of water. For longer lasting control we use Cygon E 2.

This is the perfect time for planning next years fuchsia garden, finding a spot for something different, perhaps an espalier, a small tree, or a pyramid. These are projects that are immensely rewarding.

Watch for the new fuchsia introductions in the spring. From some of our 'previews' we expect a great fuchsia year in 1970. ■

IRISES

by Sanford Roberts
Member, San Diego-Imperial
Counties Iris Society

THE SHORTER DAYS, cooler nights and a more relaxed care program allows us to enjoy the iris garden from inside during the early winter season.

For those who did not complete their fertilization of rhizomes in November, a bit late—but still worthwhile—would be a handful of super phosphate or triple phosphate (per established plant). This may be scattered around the clump or hoed or chopped in between the rows. Follow this with a good watering. The idea is to get this late application of fertilizer down to the rapidly expanding root system.

Another fertilizer program that we have practiced this fall is to fertilize "through-the-hose" method with 10-30-10 at every other watering. We fill the dispenser full of small bricks, connect to faucet, attach hose and water until all fertilizer is dispensed in this fashion. We planted over a thousand rhizomes over the Labor Day weekend and have used this method entirely. A noted San Francisco Bay Area hybridizer uses this method and reports complete satisfaction with this type of fertilization. We will continue this until the rains arrive. A local grower of prize-winning blooms is also using this foliar and soil feeding pro-

gram. A later report on this program will appear after next season's bloom period in order to more fully appraise this method for this area.

With the extra fertilization and, hopefully, the rains, come the weed population. A few hours spent uprooting each newly germinated crop of weeds will prevent much work in January and later. We use a small hoe composed of two discs. A few quick swipes here and there and the pesky weeds will not rob those rhizomes of their colorful array next spring.

Try to check on all rhizomes to see if each one is firmly settled in its appointed planting space. If some have settled too deep in the soil since planting, uncover each one a bit. Equalize the soil area surrounding the rhizome. If an occasional rhizome has settled too deep, it should be lifted slightly. Use a large tine fork and gently shove soil underneath the root ball. A depth of $\frac{1}{2}$ to $\frac{3}{4}$ inch seems about right in a rich, well-prepared soil. This may not hold true in the heaviest of adobe soils. A partially exposed rhizome might perform better in the gumbo soil.

We have recently moved from the heavy soil type of Bonita-Sunnyside area to the all together different soil structure

near Flinn Springs. In developing a bed for about 600 rhizomes, we tractor disced, then laid on about 3 to 4 inches of dry chinchilla shavings from chinchilla crates, followed by a broadcast application of 50 pounds of sulphate of ammonia to offset the nitrogen loss from the decomposition of the shavings, finally, more than an inch layer of droppings from rabbit hutches. A mellowing period of two to three weeks after roto-tilling prior to planting, then the whole planting was watered in with the hose method and the 10-30-10 application. Not a single mature rhizome was lost, though the temperature was checked at 100° and more on two days shortly after planting. About 25 out of 500 seedlings gave up, but the extreme heat in the soil might be the cause here. We hesitate on recommending this type of soil preparation until it can be studied further. Iris are tough and most varieties can adapt to any of several methods of culture.

Plan now to acquire some newer and exciting varieties. Drool a little! Get out last season's catalogs, all hurriedly taken notes while visiting gardens. Up date your "want" and MUST-HAVE lists. Check over your exchange list. One dozen of the newer varieties will give far more excitement than a garden of fifty of the varieties introduced in the late Fifties and early Sixties. If you are show-minded, dig out all pertinent facts on varieties that are proven to be blue and purple ribbon winners.

Local growers have lengthy catalog listings and descriptions of most all of the newer and some of the latest introductions. If a variety has performed well for a local grower, it will be cataloged and sold. Catalogians spend hours writing descriptions of varieties. Be your own catalog description writer and visit the Spring Iris Shows and study the actual blooms. Note the heavy substance, good branching, precise and tailored forms. Watch especially for the carrying power and color of a particular variety. If it appeals to you, plan to add that and other varieties during the summer and fall planting season.

If you attended any Fall Iris Shows and enjoyed those off-season blooms, you should consider the remontants (rebloomers) in your "add" list. Visit gardens where winter-blooming iris are growing and observe the quality rebloomers now being grown by local growers. ■

ROSES

by Richard D. Streeper,
President, San Diego Rose Society

ARE YOU INTERESTED in growing prize winning roses? Would you like to enter a rose show next spring? This article will tell you what to do to be successful. December and January are the months to get started in the San Diego area. If you now have plants of good quality which have been growing in your garden for at least a year you can be certain to win some type of award. In the next twelve months there will be many shows in the San Diego area. The first show will be held in Balboa Park on April 18 and 19. No great amount of effort is required, but you must devote small amounts of time on a regular basis beginning midwinter.

If you don't have established plants of good quality, you should start planning now for the year ahead. Select and carefully plant those varieties which have the reputation of success in San Diego area rose shows. Any member of the San Diego Rose Society will be happy to give

or help you obtain this information. To enter most shows, flowers should be identified by name. If the name of your plant is unknown to you, rose society or rose show officials will help you identify the plant.

If you intend to win prizes with your roses, here is what you must do: (1) prune properly (2) fertilize regularly (3) establish a watering and spraying schedule, and, on certain types, (4) disbud stems to a single bloom.

1. **Prune Properly.** Timing of pruning is essential if you expect success without a great deal of luck. You should determine the date of the show, or shows you want to enter. From that date you can determine the pruning date which will give you maximum bloom production.

The date of pruning controls the date of blooming. Most roses tend to bloom in recurrent cycles. The frequency of the cycle is related to soil temperature and the length of daylight hours. Buds which

take weeks to form and open in the spring and late fall will form and open in days in mid-summer. Experience and advice from experts having experience in your particular sub-climate in the San Diego area will help you perfect a pruning schedule. For purposes of this paragraph, the words "cutting date" mean the date on which you should prune a variety with an average growth rate. The term "average roses" includes most hybrid teas with 30 to 45 petals. All floribundas should be included in the slower growing or slower opening group. The importance of this definition and this growing phenomenon is that slow growing or opening varieties should be pruned earlier than our so-called average roses. Floribundas should be cut about two weeks earlier than average hybrid teas and most white hybrid teas should be also cut at that time. Here are the general rules:

- (a) For early spring shows, the cutting date should be 80 to 110 days before the show (the earlier figure relates to our most mild areas such as the College areas or parts of Chula Vista and the latter figure relates to the coldest areas such as El Cajon and Escondido).
- (b) For early June shows, the cutting date should be 50-70 days before the show.
- (c) For late June shows, the cutting date should be 45-60 days before the show.
- (d) For September and early October shows, the cutting date should be 30-40 days before the show.
- (e) For late October and November shows, the cutting date should be 40-55 days before the show.

Prize-winning roses generally have long strong stems. Therefore, prune to a bud that is capable of producing a

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strong stem. It is unlikely that the stem from the new bud will be any larger in diameter than the stem under the bud.

2. Fertilize Regularly. Use a general purpose balanced fertilizer unless you believe that you have special soil problems. One cup of fertilizer at the beginning of the growing season (about mid-February) is a good starter. It is best to add about one tablespoon of fertilizer each week thereafter. If you skip a week, add two tablespoons the following week. In the two to three weeks before a show, it is preferable to use a low nitrogen fertilizer. This helps slow plant growth which in turn creates bigger and longer lasting flowers.

Some growers are claiming outstanding results from fertilizers applied to the foliage. There is a considerable amount of variety in the combinations of products and purposes. Good results have been obtained by using liquid fertilizer as a supplement to granular fertilizer in the ground. Good results have also been claimed by users of systemic combinations which include insecticides with fertilizers. However, great caution should be observed in the use of any chemical on the foliage of plants intended for the show tables.

3. Establish a Watering and Spraying Schedule. These two items are included together because a proper spraying schedule must be coordinated with a watering schedule. Always observe this rule: water plants before applying chemicals of any sort to the plant foliage (this includes foliar fertilization). Until or unless you have reason to modify or do otherwise, apply 5 to 7 gallons of water to the ground about the base of the plant once each week. Develop a watering method which will keep the water fairly well within these limits.

If possible, apply water by noon and spray not less than twenty minutes later nor later than early in the morning of the following day. Never apply a chemical at a greater strength than recommended in its instructions. Since black-spot disease is not a problem in San Diego, despite many written reports to the contrary, it is possible to spray in the evening without harm to plants so long as a fungicide is included in the spray (the fungicide can be identified as present if the label states that the chemical controls mildew or rust).

If you are having disease or insect problems, try to identify the problem. In

What Does Your Garden Grow?

Most parents know something about the dangers of leaving medicines, drugs, and cleaning agents within easy reach of children, but the San Diego County Poison Committee has pointed out dangers lurking in an unsuspected place.

The committee says any citizen seeking to do away with himself need not go far afield to find lethal poisons. A good graze through the average garden will send the grazer out of this world in short order.

He might start with the lovely red leaves of the poinsettia. One leaf of this holiday plant will kill a child; two will polish off an adult.

Children love to pick beans and berries and munch on them. If they try castor beans or rosary peas, it will be their last munch. The mistletoe is fine for supplying the right atmosphere for Yuletide celebrations; if you want to live until New Year's Eve, don't eat the berries.

Rhubarb is fine for children, the stalks

that is. If your children try the leaves, they'll have convulsions, pass into a coma, and die.

Ever wander about the woods and pull up what looks like a large wild carrot? Don't eat it, unless you want to end up like Socrates. He killed himself by drinking the juice of this root. Called hemlock, if you remember your history.

A million persons a year, most of them children, are poisoned in this country. And much of the poison comes from "harmless" shrubs and plants.

Children should be taught what plants are dangerous. Small children should be kept away from the nearby ornamental shrubbery until it is known that the plants are harmless. If you have dangerous plants in your yard, replace them with something harmless.

Remember; if your child takes a trip down the garden path, he may not come back!

almost every case, growing problems are related to insects. For persistent problems, use chemicals which are specifically formulated to control the problem.

For show quality flowers, it is best to use chemicals which leave no residue. Thus, wettable powders, dusts and many types of liquids are not desirable. Talk to experienced rose show exhibitors if you are not familiar with the available insecticides and fungicides.

4. Disbud Stems to a Single Bloom. In certain rose show classes, the side buds must be removed so that only one bloom will be produced on a stem. If this is to be done, it should be done as soon as possible, and thus it is best to inspect your plants as frequently as possible. If you think during the week before the show that you have a potential queen of the show in your garden, make a special effort to clean the foliage on a daily basis with a very light stream of water. Take care to keep water off the bud.

Finally, if your queen of the show comes along on the day after the show, don't despair. You can find dozens of rose growing friends who will sympathize with you and know just how you feel. And you will still have the pleasure of knowing that you have created something beautiful, and that, after all, is the reason we grow roses and have rose shows.

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I certify that the statements made by me above are correct and complete. VIRGINIA CASTY NORELL

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Second Tuesday-Club House, 2:00 p.m.
Pres.: Hubert Larson 756-1926
P.O. Box 782 Rancho Santa Fe 92067

SAN CARLOS GARDEN CLUB
Fourth Tuesday, San Carlos Club, 6955 Golfcrest
Drive
Pres.: Mrs. Douglas Oldfield 6372 Lake Lemon, San Diego 92119

SAN DIEGO BRANCH AMERICAN BEGONIA SOCIETY
Fourth Tuesday, Asbury Methodist Church,
8:00 p.m.
4102 Marlborough Ave., San Diego 92116
Pres.: Mrs. Mary Holmann 284-4449
2227 33rd Street, San Diego 92104

SAN DIEGO BROMELIAD SOCIETY
Second Monday, 8 p.m. at 4724 Nabo Dr., La Mesa
Pres.: Mrs. Jackie Harnden 424-3456
2626 Coronado Ave., Space 116
Imperial Beach, Calif. 92132

S.D. CHAPTER CALIF. ASS'N NURSERYMEN
Second and Fourth Thursday, 7:30 p.m.
Pres.: Mr. Del Johnson 422-5198
366 Broadway, Chula Vista 92010

SAN DIEGO GARDEN CLUB
Third Wednesday, Seacoast Savings Building,
Encinitas, 10 a.m.
Pres.: Mrs. Waldo Vogt 755-4772
773 Barbara Ave., Imperial Beach 92075

SAN MARCOS GARDEN CLUB
Pres.: Mr. E. C. Pierdner 744-0226
1221 San Julian Dr., San Marcos 92069

SAN MIGUEL BRANCH, AMERICAN BEGONIA SOCIETY
Second Wednesday, Porter Hall Clubhouse,
La Mesa (University & La Mesa Blvd.) 8:00 p.m.
Pres.: Mrs. Mary Klinefelter 466-7631
5070 Sarita St., La Mesa 92041

SANTA MARIA VALLEY GARDEN CLUB
Second Monday, Ramona Women's Club House,
5th and Main, 9:30 a.m.
Mrs. Troy Rees 789-1334
Rt. No. 1, Box 514-H, Ramona 92065

SANTÉE WOMEN'S CLUB Garden Sec.
Pres.: Mrs. Leon Roloff 448-0291
9138 Willow Grove Ave., Santee 92071

VISTA GARDEN CLUB
First Friday, Vista Rect. Center 1:00 p.m.
Mrs. Gregory Mitchell 724-8875
245 Yacon Circle, Vista 92083

VISTA MESA GARDEN CLUB
Second Tuesday, 2 p.m., Family Association
Center
Pres.: Mrs. Clara Haskins 465-0910
2352 El Prado, Lemon Grove 92045



SAN DIEGO FLORAL ASSOCIATION

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